

REMARKS/ARGUMENTS

Status of Claims

Claims 1 to 31 are currently pending in the application.

Applicant gratefully acknowledges the Examiner's indication that claims 12, 13 and 27 would be allowable if rewritten in independent form including all of the limitations of base claims and intervening claims. Applicant has not rewritten the claims objected to by the Examiner in independent form at this time. Applicant believes the rejected claims patentably distinguish over the cited art, and are therefore allowable for the reasons described below.

Amendments to the Specification

The Examiner has objected to the format of the abstract.

Applicant has amended the abstract to remove terminology objected to by the Examiner and shorten the application to include less than 150 words.

Amendments to Claims

Claim 7 has been amended to replace the expression "wherein the means for storing measured performance parameters further comprises storing time and date information" with "wherein the means for storing measured performance parameters is configured to store time and date information".

Claim 20 has been amended for clarity by replacing the expression "from a first location to a second location" with "between a first location and a second location". Applicant submits that this is merely a clarifying amendment and does not affect the scope of the claimed subject matter.

Claim 29 has been amended to further define the various "means" recited in the claim in a manner consistent with claim 1.

Claims 30 and 31 have been amended to recite “having computer readable program code means embodied therein for execution by a computer processor”, wherein the underlined text has been added to the claims.

Specification

As discussed above, Applicant has amended the abstract to address the Examiner’s objections. Applicant submits that the amended abstract is in an appropriate form.

35 U.S.C. § 101 Rejections

The Examiner has rejected claims 30 and 31 under 35 U.S.C. § 102 because the claims are allegedly directed to non-patentable subject matter. The claims have been amended as described above and based on this amendment Applicant submits that the claims are directed to patentable subject matter.

35 U.S.C. § 102 Rejections

Controlling case law has frequently addressed rejections under 35 U.S.C. § 102. "For a prior art reference to anticipate in terms of 35 U.S.C. Section 102, every element of the claimed invention must be identically shown in a single reference." Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675, 677, 7 U.S.P.Q.2d 1315, 1317 (Fed. Cir. 1988; emphasis added). The disclosed elements must be arranged as in the claim under review. See Lindemann Machinefabrik v. American Hoist & Derrick Co., 730 F.2d 1452, 1458, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). If any claim, element, or step is absent from the reference that is being relied upon, there is no anticipation. Kloster Speedsteel AB v. Crucible, Inc., 793 F.2d 1565, 230 U.S.P.Q. 81 (Fed. Cir. 1986; emphasis added). The following analysis of the present rejections is respectfully offered with guidance from the foregoing controlling case law decisions.

The Examiner has rejected claims 20-26 and 28 under 35 U.S.C. 102(e) as being anticipated by non-patent reference Kogan et al. “Draft Technical Requirements on Outage Measurement Requirements for Packet Network”.

The Examiner has alleged that Kogan et al. discloses “measuring performance parameters from a first location to a second location in a communications network” in the form of Figure 1 of Kogan et al. illustrating “Element” and “NMS”. Claim 20 has been amended as described above. Applicant assumes that the Examiner is therefore equating “measuring performance parameters from a first location to a second location in a communications network” with measuring performance parameters between the “Element” and “NMS”. Applicant submits that this is not what is disclosed in Kogan et al. Kogan et al. discloses measurements taking place inside of the “Element” and measurement information resulting from the measurements being provided from the “Element” to the “NMS”. There is no suggestion or disclosure of making measurements of performance parameters for communications between the “Element” and “NMS”.

Furthermore, Kogan et al. discloses on page 6 second paragraph that “Each measurement agent operates independently. This differs from the peer-to-peer measurement method shown in Figure 3, which requires two agents to run on separate elements with coordination elements”. Kogan et al. describes that the autonomous measurement defined for the system of Kogan et al. is simpler in deployment and operation than the peer-to-peer measurement method disclosed in Figure 3 of Kogan et al. Therefore, Kogan et al. does not disclose measuring performance parameters between a first location and a second location, as recited in claim 20.

The Examiner equates “analyzing measured performance parameters” recited in claim 20 with the disclosure of page 7, lines 13-16 of Kogan et al. and the “Element” in Figure 1. Applicant is unsure why the Examiner is citing this particular portion of Kogan et al., as page 7, lines 13-16 appears to be directed specifically to the Defect threshold description. This threshold is a threshold for determining if there is a defect. Such a threshold does not describe analyzing “measured parameter performance” as recited in the claim. Applicant submits that since Kogan et al. does not disclose “measuring performance parameters from a first location to a second location in a communications network” for at least the reasons described above, Kogan et al. does not disclose analyzing of performance parameters.

Applicant further submits Kogan et al. does not disclose the remainder of the limitations in claim 20 in their entirety.

As Kogan et al. does not disclose all of the limitations of claim 20, Applicant submits that Kogan et al. cannot anticipate claim 20 and therefore claim 20 is novel over Kogan et al. Applicant respectfully requests that the Examiner reconsider and withdraw the 35 U.S.C 102 rejection.

Claims 21 to 26 and 28 are dependent upon claim 20. For at least their dependence upon claim 20, Applicant submits that claims 21 to 26 and 28 are novel and patentably distinguish over the cited art.

Furthermore, with respect to claim 24, the claim recites “the measuring performance parameters step comprises performing PIR signalling between the first location and the second location in the communications network”. The Examiner alleges that this limitation is disclosed on page 5, lines 2-4 and 10-17 and Figure 1 of Kogan et al. and further states that “the goal is to prevent any degrading in performance and to do so, an agent sends the outage measurements to the Network Management System”. Applicant submits that the measuring of performance parameters is unrelated to the sending of outage measurements from the Element to the Network Management System.

Furthermore, as Kogan et al. states that the NMS system is unlike the peer-to-peer system shown in Figure 3 of Kogan et al., i.e. measuring between two elements in the network, Kogan et al. does not suggest or explicitly disclose using PIR signalling to measure performance parameters between first and second locations. Kogan et al. does not anticipate claim 24 as it fails to identically disclose such a limitation.

35 U.S.C. § 103 Rejections

The law on obviousness under 35 U.S.C. 103 was recently addressed in *KSR Int'l v. Teleflex, Inc.*, No. 04-1350, slip op. at 14 (U.S., Apr. 30, 2007). Following this, examination guidelines were released by the USPTO on October 10, 2007 in regards to determining obviousness under 35 U.S.C. 103. According to these guidelines, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.* 383 U.S. 1,148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the Court are as follows:

- (1) Determining the scope and content of the prior art;
- (2) Ascertaining the differences between the claimed invention and the prior art; and
- (3) Resolving the level of ordinary skill in the pertinent art.

The Graham factors, including secondary considerations when present, are the controlling inquiries in any obviousness analysis. Once the findings of fact are articulated, Office personnel must provide an explanation to support an obviousness rejection under 35 U.S.C. 103. According to KSR, for the Patent Office to properly combine references in support of an obviousness rejection, the Patent Office must identify a reason why a person of ordinary skill in the art would have sought to combine the respective teachings of the applied references.

Applicant's analysis below demonstrates that the Examiner has failed to properly conform to the aforementioned guidelines for a finding of obviousness under 35 U.S.C. 103.

The Examiner has rejected claims 1-4, 6-11, 14-19, 29, 30 and 31 under 35 U.S.C. 103(a) as being unpatentable over Kogan et al.

Claim 1

Ascertaining the differences between the claimed invention and the prior art

The following is a discussion of how the cited references do not disclose all the elements of the rejected claim. While it may be considered that "the mere existence of differences between prior art and an invention does not establish the invention's non-obviousness", Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one skilled in the art (Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*, published in Federal Register Vol. 72, No. 195 October 10, 2007). As such, if elements from a claim are not disclosed by the combination of cited references and no valid reasoning is provided why the missing elements would be obvious, this may provide a strong basis for why a claim should not be rejected based on obviousness.

With respect to claim 1, the Examiner alleges that Kogan et al. discloses “A dependability measurement system comprising; performance measurement ...for measuring performance parameters between a first location and a second location in a communications network at sufficient frequency to detect service-affecting failures and time-of-occurrence” in the form of an outage event reported to the Network Management System (NMS) in Figure 1 of Kogan et al. by measurement data being sent from the “Element” to the “Network Management System” (NMS).

Applicant submits that Kogan et al. does not disclose performance measurement means for measuring performance parameters between a first location and a second location. Kogan et al. suggests “measurement of element internals on a basis of individual components such as a card, interface and CPU” (In the paragraph entitled “Accuracy” at the bottom of page 4). Such measurement may bring failure events to light. An example of a failure event is defined on page 7 as utilization of a CPU above a threshold of 95%. There is no suggestion or explicit disclosure in Kogan et al. of performing measurements “between a first location and a second location” to determined failure events.

Furthermore, Kogan et al. discloses on page 6 second paragraph that “Each measurement agent operates independently. This differs from the peer-to-peer measurement method shown in Figure 3, which requires two agents to run on separate elements with coordination elements”. Therefore, Kogan et al. does not measure performance parameters between a first location and a second location, for example as described on page 8, lines 6-9 and page 12, lines 4-25 of the present application and as recited in claim 8 of the present application. Even if one were to consider that the first and second locations were “end points of a service path between an input and output of a single network element”, Applicant submits that Kogan et al. does not specifically disclose measuring performance parameters between the input and output of a single network element.

The Examiner equates “service-affecting event computation means for analyzing performance parameters measured by the performance measurement means” as recited in claim 1 of the present application with measuring and collecting data in order to be able to report and store outage event as described on page 7 of Kogan et al. and illustrated in the Element of

Figure 1. Applicant submits that as Kogan et al. does not disclose performance measurement means for at least the reasons discussed above, Kogan et al. also does not disclose analyzing the performance parameters measured by the performance measurement means.

The Examiner equates “a user interface for supplying the dependability measurement system with system parameters and control information” as recited in claim 1 of the present application with the “Measurement Interface” illustrated in Figure 1 of Kogan et al. Kogan et al. states on page 5, “The interactions between the measuring element and the EMS/NMS are through two interfaces, one being an SNMP MIB or flat text file for outage data and the other a control interface for configuration and management commands”. Applicant submits that what Kogan et al. is describing for communication between the Element and the NMS is a “protocol” interface and not a “physical interface”, as it would be understood by one skilled in the art from a reading of the description, in particular page 8, lines 2-5 and Figure 1. There is no direct disclosure in Figure 1 of “a user interface for supplying the dependability measurement system with system parameters and control information” as recited in claim 1.

The Examiner concedes that Kogan et al. does not specifically disclose “performance measurement means”, “service-affecting event computation means”, “equipment event measurement means”, “population calculator means” and “dependability metric calculator means”, but alleges that it would have been obvious to include the above means to the system disclosed by Kogan et al. to perform the functionality. For at least the reasons discussed above, Applicant submits that Kogan et al. does not disclose all the functionality that each of the “means” is configured to provide, and as such, Applicant submits that it would not be obvious to provide the means to implement a functionality that is not disclosed.

Furthermore, Applicant submits that what is disclosed in Kogan et al. is a general definition of Outage Measurement Requirements for Packet Networks that identifies Measurement Methodology (Section 5), Data Definition and Collection (Section 6) and Configuration and Management (Section 7), but does not describe the level of detail described in the present application and claimed in the claims. Applicant submits that even if there is some similarity between the general teachings of Kogan et al. and the claims of the present application, there may be many ways in which the disclosure of Kogan et al. may be

implemented and it is improper to suggest that the manner recited in the present claims would be an obvious implementation without further evidence of prior art to that effect.

Applicant submits that there are differences between what is disclosed in Kogan et al. and what is disclosed in claim 1 resulting in a clear lack of at least one limitation in Kogan et al. that is alleged to correspond to the limitations recited in claim 1. Furthermore, the Examiner has not provided a suitable reason why the missing limitations would be obvious to one skilled in the art. Therefore, Applicant submits that there are differences between the cited art and claim 1 of the present application that demonstrate that claim 1 of the present application patentably distinguishes over the combination of references.

Claims 2-4, 6-11 and 14-19

Claims 2-4, 6-11 and 14-19, either directly or indirectly, depend on claim 1. For at least the reasons discussed above with regard to claim 1, Applicant submits that claims 2-4, 6-11 and 14-19 patentably distinguish over Kogan et al.

Furthermore, with respect to claim 8, Applicant submits that Kogan et al. does not disclose “the first location and the second location define end points of a service path between first and second network elements”. The Examiner submits that this limitation is disclosed when the “Element” and “NMS” are an end point of the network or it can be between two elements in Figures 2 and 3 of Kogan et al. Applicant submits that Figures 2 and 3 are described as systems different than the system defined by Kogan et al. The system defined by Kogan et al. is a system that is alleged to be better than those disclosed in Figures 2 and 3, and thus Applicant submits that one skilled in the art would not combine the limitations of what is disclosed about the system being defined in Kogan et al. and the systems described with respect to Figures 2 and 3. As discussed above, Kogan et al. discloses that “Each measurement agent operates independently. This differs from the peer-to-peer measurement method shown in Figure 3, which requires two agents to run on separate elements with coordination elements”. As Kogan et al. discloses the measurement takes place inside the element and not between network elements, Applicant submits that claim 8 patentably distinguishes over Kogan et al.

Furthermore, with respect to claim 9, Applicant submits that Kogan et al. does not disclose “the first location and the second location define end points of a service path between an input and output of a single network element”. The Examiner submits that this limitation is disclosed in the form of the “Element” of Figure 1 of Kogan et al. Applicant submits that Kogan et al. does not specifically disclose performing measurement of performance parameters between the input and output of a single network element as recited in claim 9. Applicant submits that claim 9 patentably distinguishes over Kogan et al.

Claim 29

Amended claim 29 is a system claim that recites a communications network capable of operating a dependability measurement system including a plurality of network elements having some of the functionality that is disclosed in claim 1, an operational service system having a remainder of the functionality that is disclosed in claim 1 and communication links that facilitate communication between the network elements and an operation service system. As amended claim 29 recites similar subject matter to claim 1, Applicant submits that amended claim 29 patentably distinguishes over Kogan et al. for at least the same reasons as discussed above with regard to claim 1.

Claim 30

Claim 30 is a computer readable medium claim that recites a “computer readable medium having computer readable program code means embodied therein for execution by a computer processor for operating an operational service system of a dependability measurement system”. Applicant submits that the claim recites “code means for interfacing with network elements that measure point-to-point performance parameters along a service path between at least two locations to determine an occurrence of a network event and collect and store network event information” and “code means for interfacing with network elements that monitor individual network elements for an occurrence of a network element event and collect and store network element event information”. While it may be considered that Kogan et al. discloses the second limitation, which Applicant does not concede, Kogan et al. does not suggest or disclose the first limitation, as page 6, second paragraph of Kogan et al. specifically discloses that “Each

measurement agent operates independently. This differs from the peer-to-peer measurement method shown in Figure 3, which requires two agents to run on separate elements with coordination elements". The first limitation is contrary to the disclosure of operation of the system of Kogan et al.

Claim 31

Claim 31 is a computer readable medium claim that recites a "computer readable medium having computer readable program code means embodied therein for execution by a computer processor for use in a network element as part of a dependability measurement system". Applicant submits that the claim recites "code means for measuring point-to-point performance parameters along a service path between at least two locations to determine an occurrence of a network event" and "code means for monitoring the network element for an occurrence of a network element event". While it may be considered that Kogan et al. discloses the second limitation, which Applicant does not concede, Kogan et al. does not suggest or disclose the first limitation, as page 6, second paragraph of Kogan et al. specifically discloses that "Each measurement agent operates independently. This differs from the peer-to-peer measurement method shown in Figure 3, which requires two agents to run on separate elements with coordination elements". The first limitation is contrary to the disclosure of operation of the system of Kogan et al.

For at least the above reasons, Applicant submits that claims 29, 30 and 31 patentably distinguish over Kogan et al. and respectfully requests the Examiner reconsider and withdraw the obviousness rejection of these claims.

Claim 5

The Examiner has rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over Kogan et al. and Tanaka et al. (U.S. Patent Publication No. 20010053130).

Claim 5 is dependent on claim 1. Accordingly, claim 5 should be allowable for the same reasons provided above in the discussion of the rejection of claim 1. For at least the reasons discussed above, Applicant respectfully submits that Kogan et al. does not teach all the

limitations recited in claim 1 as alleged by the Examiner. Without all the limitations of claim 1 being disclosed by Kogan et al., Applicant submits that there are differences between the cited art and the claims of the present application that demonstrate that claim 5 patentably distinguish over the combination of references.

Applicant does not concede that Tanaka et al. discloses the additional limitations referred to by the Examiner.

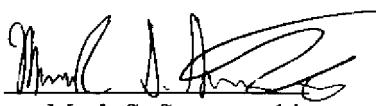
Applicant does not concede that the Examiner has met the burden of identifying a reason why a person of ordinary skill in the art would have sought to combine the respective teachings of the applied references of Kogan et al. and Tanaka et al., as required by KSR.

For at least the above reasons, Applicant submits that claim 5 patentably distinguishes over Kogan et al. and Tanaka et al. and respectfully requests the Examiner reconsider and withdraw the obviousness rejection of claim 5.

In view of the foregoing, early favourable consideration of this application is earnestly solicited.

Respectfully submitted,

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Dated: July 21, 2008

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